ORIGINAL

0000170391

DOCKET NO. E-01575A-15-0312

IN THE MATTER OF THE APPLICATION OF SULPHUR SPRINGS VALLEY ELECTRIC COOPERATIVE, INC., FOR A HEARING TO DETERMINE THE FAIR VALUE OF ITS PROPERTY FOR RATEMAKING PURPOSES, TO FIX A JUST AND REASONABLE RETURN THEREON, TO APPROVE RATES DESIGNED TO DEVELOP SUCH RETURN AND FOR RELATED APPROVALS

Dear Chairman Little and Commissioners,

I am an owner of Net Zero Solar, a renewable energy installation company serving southern Arizona, and have been a renewable energy professional working in Arizona since 2003. Net Zero Solar has installed over 200 solar electric and solar thermal systems for members of Sulphur Springs Valley Electric Cooperative since 2009.

SSVEC's proposal to make significant changes to their net metering tariff and greatly increase their fixed charges is extreme, to say the least. An analysis of the bills of seventeen SSVEC members with solar electric systems (installed by Net Zero Solar) found that **this proposal would increase simple payback for those choosing to invest in solar from around nine years to about thirty years!** With these extended payback times, it is highly unlikely that SSVEC members will install solar on their homes.

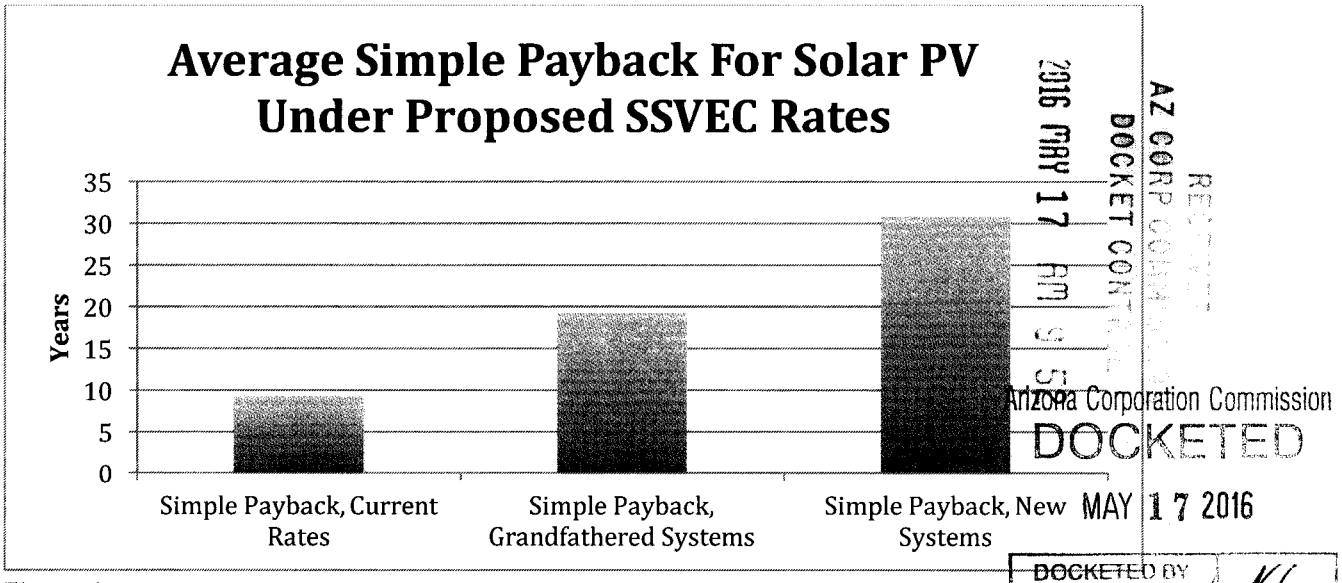


Figure 1

Further analysis found **this proposal would reduce the annual savings for these seventeen existing co-op members by 49% on average under SSVEC's proposed grandfathering scheme. If members with similar load profiles chose to install solar, the effect is even more pronounced—annual savings would be slashed by**

64% on average! For a detailed breakdown of estimated lost savings for these members, see Table 1.

Customer Identifier	PV System Size (kW DC)	Percentage of Total Energy Use from Solar PV	Percentage of PV Production that is Excess Generation	Percent Lost Savings for Grandfathered Solar Customer Under Proposed Rates	Percent Lost Savings for New Solar Customer Under Proposed Rates
1	3.85	123.3%	66.5%	57.5%	79.6%
2	9.28	113.2%	65.9%	33.6%	56.0%
3	5.04	116.2%	63.1%	49.8%	70.5%
4	3.85	44.2%	36.5%	67.7%	32.2%
5	4.08	79.1%	48.2%	54.4%	63.9%
6	8.4	99.3%	58.7%	37.4%	56.3%
7	6.63	116.3%	60.7%	40.9%	61.1%
8	9.9	98.8%	53.7%	32.1%	51.9%
9	5.355	96.2%	65.1%	46.0%	69.3%
10	4.32	85.3%	66.8%	58.4%	67.9%
11	5.52	202.6%	78.2%	54.9%	74.5%
12	7.65	111.7%	69.5%	40.4%	60.0%
13	3.85	112.9%	72.8%	65.8%	81.4%
14	4.08	110.1%	73.9%	54.9%	81.2%
15	4.68	103.5%	66.9%	51.8%	76.7%
16	2.88	85.3%	66.8%	58.4%	67.9%
17	7.8	120.1%	71.7%	38.9%	60.0%
Average:	**5.72**	**107.0%**	**63.8%**	**49.6%**	**65.3%**

Table 1

But beyond these estimated deleterious effects for current solar users, proposed rates would make it extremely hard for potential solar customers to evaluate an investment in solar energy systems for the following reasons:

1. The required complex modeling of minute-to-minute expected customer electric loads and solar electric system production due to variable nature of customer load profiles with similar total monthly use. This modeling would require a minimum of 15-minute interval load data for any potential solar customer, though more granular data would provide greater accuracy.
2. Uncertainty regarding future benefits from a solar electric system if a customer load profile changes. For example, if a customer who currently provides care to his or her children at home during the day returns to work and therefore uses less energy during the day, they would then receive a smaller economic benefit from their solar electric system, due to a greater amount of excess generation

credited at wholesale rates. Similar effects would come from increases in energy efficiency in the home.

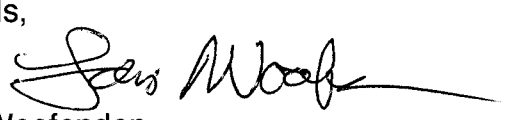
More troubling, due to the variation of load patterns, customers offsetting similar amounts of energy with solar electric systems would have highly varying outcomes. Consider Customer 6, Customer 8, and Customer 9 in Table 1. Each provides almost 100% of their net electricity needs from solar. But if grandfathered under this proposal, lost annual savings would be 37.4%, 32.1%, and 46.0%, for Customer 6, Customer 8, and Customer 9, respectively.

For new customers with load profiles similar to these customers, the spread is even more significant, ranging from annual loss savings of 51.9% for Customer 6, to annual lost savings of 68.3% for customer 9! Again, this variability of individual member load profiles makes evaluation of the benefits of a solar electric system quite impractical under SSVECs proposal.

For detailed information on the models used to produce these results, including inputs, outputs, and detailed values, you can visit < http://tinyurl.com/SSVEC >.[1]

In conclusion, I urge you to reject SSVEC's impractical and ill-conceived proposal to effectively eliminate net metering, and impose punitive fixed charges on co-op members who have solar.

Regards,



Louis Woofenden

Engineering Director/Owner
Net Zero Solar, LLC
101. W. 5th St., Tucson, AZ 85705
Arizona ROC #248710, 259756, 259521

Phone: 520.207.4053 Ex. 2
Cell: 520.237.5040
Fax: 520.203.7230
E-mail: louis@netzerosolar.net

NABCEP Certified PV Installation Professional™
NABCEP Certified Solar Heating Installer™

[1] Full, unshortened URL is https://www.dropbox.com/sh/maiftslo30guedt/AACU-0Rv3FZRhcSHyhxBm_Tla?dl=0